Application N 10/074,9  First Named I William  Art Unit 1775  Confirmation 6883	92 February 13, 2002
Art Unit 1775  Confirmation	Alan Burris  Examiner
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Applicant requests review of the final rejection in the aboramendments are being filed with this request.	ve-identified application. No
This request is being filed with a notice of appeal.	
The review is requested for the reason(s) stated on the a Note: No more than five (5) pages may be provided	attached sheet(s). led.
I am the  Signature:  ✓ Duane C.	: . Basch, Esq., Reg. No. 34,545/
assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.	me: <b>Duane C. Basch</b>
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attorney or agent acting under 37 CFR 1.34. Date:	ec. 12, 2011
Registration number if acting under 37 CFR 1.34	

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

## **REASONS SUPPORTING WITHDRAWAL OF REJECTIONS**

Claims 1-3, 5, 7, 9, 18, 20-23, 25-31, and 33-34 remain rejected under 35 U.S.C. §103(a) as being unpatentable over Contreras (5,824,243) in view of Burris (5,207,993; "Burris '993").

The suggested combination fails to support all the limitations recited in amended independent claims 1 or 30. Among other limitations, Contreras and Burris '993 both fail to teach an "ozone mixing system mixing and dissolving the ozone containing gas in the liquid and producing a quantity of ozonated liquid that is, when the device is operating, greater than the amount that is demanded by the operatory unit" as recited in claim 1, for example. Nor does the combination disclose a continuous circulation system that continuously re-circulates liquid containing dissolved ozone through a pressurized liquid recirculation passageway connected to and providing liquid to the operatory unit, the circulation system including a back pressure control to maintain pressure sufficient to dispense the ozonated liquid from the recirculation passageway, as set forth in the rejected independent claims.

Neither Contreras nor Burris '993 disclose a mixing system producing a quantity of ozonated liquid that is greater than the amount demanded by the operatory unit, and thereby assure that liquid is recirculated. Considering the example at col. 3 of Contreras in context, it is clear that the disclosure is to an on-demand system and that the pump only operates to provide water or recirculate when the pump motor is activated (see col. 3, lines 28-29 and 47-48). On this basis alone, Appellants respectfully submit there is no disclosure of the recited mixing system or continuous circulation system by the proposed combination, and that the independent claims are patentably distinct over the alleged combination.

Furthermore the limitations of the recited control system are not taught - particularly a control system including an ozone sensor located in a liquid recirculation passageway, and an alarm connected to the control system to indicate whether the device is operating properly (e.g., claim 1). As noted previously, at best the cited elements may ensure that water contains dissolved ozone or that the system is shut down due to lack of water. However, there is no teaching of a control system including an alarm to indicate whether the device is operating properly (e.g., claim 1), or to monitor the liquid level in a treatment chamber (e.g., claim 30).

In light of the previous amendments to claims 1 and 30, which are understood to have been entered upon appeal, independent claims 1 and 30 are patentably distinguishable

over a combination of Contreras in view of Burris '993. Accordingly, the rejection is traversed, and withdrawal of the rejection as it applied to claims 1 and 30 is respectfully requested. For purposes of brevity, separate arguments relative to the dependent claims are reserved for the appeal brief.

Claim 1 was also rejected under 35 U.S.C. §103(a) as being unpatentable over Burris ('993) in view of Contreras. This rejection is respectfully traversed as well.

In addition to the distinctions noted above, Burris '993 is being taken out of context. The Examiner mistakenly urges that Burris '993 teaches "[a] continuous circulation system, i.e., circulation loop, draws liquid from reservoir 36 via line 16 through pumping system 20 (which is a pressure regulator) and returns purified liquid to the reservoir via line 41. Therefore, the circulation system re-circulates liquid containing dissolved ozone and is capable of continuous circulation (Col. 5, 11.59-67)." (Final Office Action, p. 11) Appellants respectfully disagree and point out that Burris '993 is directed to a batch system and that the circulation described is only while purification occurs (col. 5, lines 20 – 23). While teaching circulation during a batch purifying operation, Burris '993 clearly indicates that after purifying circulation, the output route is changed to flow to an outlet from the pumping system and the ozone generator is turned off when this occurs. (see e.g., col. 5, line 50 – col. 6, line 4) Such a teaching, of a batch purification system, is believed contrary to the limitations set forth in amended claim 1 relative to the continuous circulation system.

Furthermore, Appellants once again note that the claimed device disinfects operatory unit water and lines, which requires outputting water containing dissolved ozone as set forth in the claims, which is not taught by the combination. This further reinforces the difference between a device for disinfecting operatory unit water and lines and a batch system for water purification, as one skilled in the art would appreciate.

It remains unclear to Appellants, and thus to one of ordinary skill in the art, how the Examiner arrives at a conclusion that a continuous circulation system is taught, let alone one that re-circulates liquid containing dissolved ozone and at the same time provides it to the operatory unit in view of Burris '993 teaching away from such an invention. Appellants respectfully submit that the alleged combination would not have taught to one of ordinary skill in the art what has been alleged, and withdrawal of the rejection relative to claim 1 is respectfully requested.

Claims 1-3, 5, 7-16, 18, 20-23, 25-29, and 33-34 remain rejected under 35 U.S.C. §103(a) as being unpatentable over Engelhard et al. (5,942,125; Engelhard) in view of Burris '993. This rejection is traversed and withdrawal is respectfully requested.

Engelhard also fails to teach all of the recited limitations of claim 1, as well as claims dependent therefrom. Appellants respectfully submit that the rejection mischaracterizes the nature of the claimed invention. In particular, the rejection characterizes the invention as "an ozone generator connected to a source of Compressed air and a water line, with means to mix ozone and water to provide an active, ozonated water for distribution to the circulation lines of a dental operatory unit." (Final Office Action, p. 12) As is apparent upon review of independent claim 1, for example, the rejected claims recite several limitations that are either ignored or mischaracterized in the final rejection. As to the suggestion that the claims recite only features that are directed to the intended use, Appellants respectfully submit that the cited limitations characterize a lower limit on the capacity of the recited ozone mixing system, a limitation that is not taught or suggested by Engelhard.

Furthermore the limitations of the recited control system as set forth in independent claim 1 are not taught - particularly a control system including an ozone sensor located in a liquid recirculation passageway, and an alarm connected to the control system to indicate whether the device is operating properly (e.g., claim 1). As noted previously, there is no teaching of a control system including an alarm to indicate whether the device is operating properly as in claim 1.

Appellants respectfully urge that claim 1 is patentably distinguishable over the teachings of Engelhard and Burris '993, alone or in combination, and withdrawal of the rejection is respectfully requested. For purposes of brevity, separate arguments relative to the dependent claims are reserved for the appeal brief.

Claim 24 was rejected under 35 U.S.C. 103(a) as being unpatentable over Engelhard in view of Burris '993 or Contreras in view of Burris '993 as applied to claim 1, and further in view of McMahon (5,681,370). This rejection is also traversed and withdrawal of the rejection is requested.

Appellants reiterate the arguments presented above relative the alternative combinations as applied to independent claim 1, from which claim 24 depends. Withdrawal of the rejections is requested for at least these reasons. Dependent claim 24, sets forth a specific relationship between the desiccant and the valves (note plurality) that are closed to prevent the desiccant's exposure to moist air when the device is not operated. Appellants respectfully urge that such limitations are neither taught nor

suggested by McMahon valves 78 and 88 (switch between dry / purge modes), nor any combination as presently alleged therewith. Although McMahon teaches valves, they do not appear arranged in the manner claimed to protect a desiccant from exposure to moist air. Moreover, McMahon teaches away from such an embodiment in describing an open top for cavity 40 in which desiccant 50 is placed (e.g., col. 2, line 65 – col. 3, line 21), and McMahon teaches the drying of desiccant 50 (col. 5, line 66 – col. 6, line 33). Thus, McMahon is not concerned with reducing exposure of the desiccant to moist air while not in operation. In view of the above-noted distinctions, the rejection is respectfully traversed and withdrawal of the rejection is, once again, requested.

The conferees are respectfully requested to thoroughly review the pending claims relative to the cited patent documents. Withdrawal of the rejections and allowance of the pending claims is respectfully requested.

Respectfully submitted,

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